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LIVESTOCK MARKET INFORMATION REPORTING SYSTEM:

FEASIBILITY STUDY AND PRODUCER QUESTIONNAIRE

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The responsibility for the report as written and all conclusions reached herein, is the consultants' alone, and does not necessarily reflect the opinions of those who assisted during the course of this investigation and the Federal and Provincial governments which funded the study.

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LIVESTOCK MARKET INFORMATION REPORTING SYSTEM
FEASIBILITY STUDY AND PRODUCER QUESTIONNAIRE

1 INTRODUCTION

Accurate and timely information concerning markets, prices and volumes, as well as short term changes and trends in supply and demand conditions is an essential ingredient for efficient performance of any marketing system. Marketing information is linked closely to effective and competitive price determination and to production and marketing decisions. In the Canadian beef industry, the most widely distributed market information is provided by Agriculture Canada based on sales at Public Livestock Markets across the country. Additional information relating to direct sales to packers is provided by Canfax to its members and to public information sources, generally with a day or more time lag. Some of the larger auction markets also provide weekly newsletters concerning local sales and regional market conditions. Phone in "code-a-phone" information has been available in Ontario (government operated) and Alberta (Alberta Cattle Commission) for several years. The most recent development has been the electronic accumulation of information in Alberta and Saskatchewan.

Information concerning market conditions in B.C. cattle markets is scarce, especially on a daily basis, since there are no Public Livestock Markets in the province. Market reporting is primarily limited to radio, newspaper and weekly or periodic reports supplied by the larger auction markets. In terms of daily price information, the industry is dependent on

reports relating to Alberta markets as a barometer of market conditions. Although this type of information is useful to feedlot operators in negotiating prices for direct sales of slaughter cattle to packers, it is not adequate for decisions concerning auction sales of either feeder or slaughter cattle in the province. As a result, producers are in a weak position concerning the timing and choice of markets.

Accurate and timely market information from provincial sales outlets is necessary to facilitate pricing efficiency. Producers require ready access to price information from B.C. markets and from Alberta prior to making selling decisions. After consideration of factors which affect gross returns, namely: price, transportation, shrink and selling fees; producer selection of market outlets ensures maximum returns as well as competitiveness in the marketing system. Availability and utilization of regional price information by producers is a prerequisite to attaining pricing efficiency.

The beef industry and government agencies in B.C., as well as other provinces, have recognized the need to improve auction market price reporting, and have established the Canadian Cattle Markets Information Advisory Committee to coordinate the efforts of all groups involved in the collection and dissemination of market information. A subcommittee has also been established to set guidelines for electronic remote data entry market price reporting systems such as those presently in operation in Alberta and Saskatchewan. Electronic systems may have considerable potential for improving the scope and quality of market price reporting for the B.C. industry.

The purpose of this study was to assess the feasibility of establishing a remote data entry market price reporting system for livestock sales in British Columbia. Price reporting systems in Alberta, Saskatchewan, Ontario and the United States were assessed to determine the relevance of their experience to the B.C. situation. The evaluation included costs (hardware, software, and operational requirements), and an assessment of producer and market operator perceived reporting requirements. A producer questionnaire addressed producer perceptions of the usefulness of current sources of market information and the desirability of an electronic livestock market information system. Auction market operators were also polled concerning the merits of the electronic market reporting. The central objectives of the study were:

1. To explore the feasibility of establishing a remote data entry market price reporting system with centralized access for British Columbia.
2. To evaluate current sources of market information used by B.C. Cattlemen and the potential for cattlemen to adapt to new market information technology and its application to their operations.

The study was carried out in two parts relating to the feasibility and potential use for a remote data entry market price reporting system. In the first phase, interviews were conducted with industry representatives in Alberta (Alberta Cattle Commission, Alberta Agriculture and selected market operations) to develop a detailed description and understanding of the evolution, specifications and operations of the Alberta system. Equipment and software, as well as operational requirements and costs were

documented. In the second phase of the study, cattlemen and market operators in B.C. were surveyed to determine the adequacy of existing sources of market information, the need for improvements, and the extent to which an electronic market reporting system would enhance market information and be used by the beef industry.

The feasibility of a livestock market information reporting system for B.C. was determined on the basis of costs to provide the kinds of services demanded by B.C. producers in relation to frequency of use as determined by the survey information. System costs were estimated to include the fixed costs of equipment and operating costs of the central collection agency, market operators, and telephone communications. Alternative information collection and dissemination methods and their costs were also outlined. The feasibility of a B.C. system was addressed on the basis that it should be compatible with the market information guidelines of The Canadian Cattle Markets Information Advisory Committee.

2 MARKET REPORTING SYSTEMS

2.1 THE ALBERTA SYSTEM

2.1.1 Historical Development

Producers have recognized the need for more representative price information as the number of feedlot cattle marketed at public yards has declined in favor of direct marketing, and as country auctions have accounted for a growing share of feeder cattle marketings. CANFAX, a member funded information service, was designed to provide on-going daily price information on direct slaughter cattle sales to members. Canfax information has continued to be available through client-paid phone calls and in a weekly information summary.

The current Alberta Cattle Commission (ACC) market information service evolved through two major phases. The first phase involved accumulation of daily market information from Agriculture Canada for public markets, information from country auctions on sales days, and daily direct sales summaries from Canfax. Information was acquired through telecopiers and/or telephone from the public yards and by telephone from country auctions. The second phase involved computerization of major auctions to accumulate sales data, prepare market summaries and transfer information to the ACC office. Market reports are compiled for feeder cattle, slaughter cattle and the media, and distributed through toll-free code-a-phones. Funding is provided by the ACC, Alberta Agriculture and the Horned Cattle Trust Fund.

2.1.2 Data Collection and Assimilation

The larger auction markets in Alberta have, traditionally provided market information to local radio stations and newspapers. Addition of the ACC system has not eliminated this service; however, it has provided wider exposure to regional market activity. The introduction of micro-computers has increased the detail, accuracy and timeliness of acution market price reporting. Few problems have been encountered by newly trained (usually not more than one day) auction market clerical staff. Besides the benefits which auction operators may derive from computer availability, they feel that their participation provides improved service to the industry.

Five auctions participated on the ACC system during the summer of 1984, representing about 250,000 head of annual marketings (Grande Prairie, Ponoka, Calgary, Fort MacLeod and Lethbridge). Expectations are that three other major auctions may join the system in the near future which would increase market volumes to about 600,000 per year.

Equipment - Originally Apple II+ computers were placed in the auctions. With some auctions computerizing their operations, there are currently Apple II+, IBM and Digital Equipment computers. Hayes 300 baud modems and one disc drive are necessary at each auction. Printers are optional depending on the needs of the auction market. Equipment changes have at times resulted in compatibility problems.

Operating Procedures - The price, quantity, weight and class of each lot of cattle sold is entered. The extension (Price x Weight x Quantity)

is automatically calculated and is available for use on sales slips if the auction choses to make use of it. The software provided to the auction market summarizes all lots for each class of cattle by weight categories for transmittal to the ACC office. Originally, data for each lot was transmitted to ACC, but this procedure required substantially more line time and was subject to greater error and telephone cost. At pre-arranged times the ACC reporter calls each auction market and the summary report is transmitted from the auction computer to the ACC computer. Appendix 1 shows a market summary as transmitted from an auction market to the ACC market reporter.

Total Cost - Since the system was introduced on an experimental basis, computer hardware and software has been provided through joint funding associated with the system trials. Auction operators interviewed indicated that the program has resulted in minimal costs to them—approximately 3 to 4 hours of clerical time to input a day's sale of up to 1000 head.

The auction operators interviewed were generally positive concerning the ACC market reporting system. With exception of some clerical time, no additional costs have been incurred. The regional market reports also provide advertisement for participating auctions. One concern expressed by all operators was the price range quoted in market reports, a point which ACC and the markets have been attempting to resolve. Originally, price ranges and weighted average prices were calculated after removing one standard deviation from the high and low values for each sales class. Under the present system the actual price ranges are reported. Auction market operators claim this procedure results in large price ranges which

are not representative of actual market conditions.

2.1.3 Market Reporting and Distribution

The Alberta market reporting system is operated from the ACC office in Calgary. The location is convenient as it provides an access to Canfax information and the U.S. wire service which highlights cash and futures market activity in the United States. Market information is available to Alberta producers, businesses and the media twenty-four hours per day through code-a-phones.

Equipment - ACC started with an Apple II+ computer, but currently uses an IBM-PC; Hayes 300/1200 baud modem, printer, and six Phillips code-a-phones. Two code-a-phones are used for slaughter cattle reports (one for long distance calls and one for local calls), two for replacement cattle (one long distance and one local) with a third available during peak season, and one with a more descriptive format for the media. The media often tape the message direct for their market reports.

Staffing - One full time market reporter is required, spending approximately half-time on the compilation of data from non-computerized auctions and other sources, and half-time in report preparation and recording.

Operating Procedures - ACC recieves a daily summary (Via computer communications) from the Calgary public yards and a sales summary from participating country auctions on sales days or the morning after. This

information is supplemented with information from Canfax and with sales information received by telephone, from other major country auctions. Information is summarized by regions (Calgary South, Central, and Edmonton and North) for replacement cattle. Slaughter cattle prices are quoted for Edmonton/Red Deer, Calgary and Lethbridge. Prices for Toronto, Winnipeg, and Omaha, as well as Chicago futures markets are also quoted for slaughter cattle. These summaries are transferred to the code-a-phone tapes for replacement cattle when relevant new information is available, and morning and afternoon for slaughter cattle. The price range and weighted average is also quoted by region (for each class of cattle when volumes are large).

Appendix 2 provides an overview of the information provided on the slaughter and replacement tapes. These sheets are available to producers so they can record the information they require when listening to the market reports.

Total Cost - Total annual costs are approximately $130,000 for staff and expenses, office supplies and telephone costs. Program costs increase as utilization of the service increases largely reflecting telephone line charges. Line costs are charged at a rate of $2350 per 160 hours use. Charges for the back-up system used during the peak fall period for feeder cattle are $195 for 5 hours per month. In 1983, the system handled 80,000 calls for a total line charge of $76,000 (average of $.95 per call).

2.2 THE ONTARIO SYSTEM

Ontario was the first province to implement a code-a-phone market information service for cattle. The system, operated by the Ontario Ministry of Agriculture and Food, reports price information from 13 Ontario auctions (sales barns), public sale yards, Chicago futures and Omaha cattle markets. A market reporter accumulates market information through telephone contact with the various markets following sales. Mornings and afternoon summary reports are prepared and made available on code-a-phones. The media is provided with toll-free telephone access and accounts for 20 to 25 calls per market report. Producers outside the Toronto area must pay long distance phone charges and represent an additional 20 or more calls per market report. Ontario is currently evaluating the feasibility of the Alberta system for their cattle market reporting.

2.3 THE SASKATCHEWAN SYSTEM

The Saskatchewan Wheat Pool Beef Marketing Agency (SBMA), prepares a weekly market report based on information derived from the electronic selling of slaughter and feeder cattle in the province. The agency operates 9 markets and has a 25% share in the Saskatoon livestock market. Sales through SBMA facilities account for about 50% of total Saskatchewan cattle sales.

The Saskatchewan system is very different from the reporting arrangement offered in Alberta or Ontario. Market reporting is

incorporated with the Wheat Pool's electronic cattle selling system. Cattle weights are automatically entered into the computer and corresponding animal prices entered upon completion of each sale. The system also performs all accounting and cheque writing associated with the sales. Once completed, all sales data are transferred to a central computer in Regina where market reports are compiled.

Sales data are summarized for 100 pound weight classes into frequency distributions with $2 price increments. The Pool does not release the complete market summary, including compiled frequency distributions to the general public, but supplies data in prescribed formats for Agriculture Canada market reports.

2.4 THE UNITED STATES SYSTEM

There are, according to the USDA in Washington, D.C., no electronic livestock reporting systems in operation in the U.S.. Market reporting is done by either USDA market reporters or by state market reporters supervised by the USDA while in attendance at local sales.

At present, a project to investigate the merits of electronic market reporting systems is underway in North Carolina. As part of the project, state market reporters attend sales and enter data directly into micro-computers which are used to compile market reports. The compiled reports are then distributed to the USDA market news. To date, the USDA is enthusiastic concerning the project, and is optimistic that greater use of this type of reporting will be made in the future.

3 B.C. PRODUCER SURVEY

A survey of B.C. cattle producers was conducted to provide an overview of present sources of market information used, market information requirements and receptiveness to an electronic system. A random sample of 700 producers in 8 regions received the survey questionnaire (Appendix 6). Only 64 producers, representing 10,514 head of cattle marketings, responded to the survey. Of these, 40 marketed feeder cattle, 5 marketed slaughter cattle, and 19 marketed both slaughter and feeder cattle. For interpretation of the survey results it was necessary to combine the 8 regions into four (Interior, Omineca-Peace, Mainland, and Island).

Table 1 outlines the distribution of producers and types of cattle marketed in the four regions. While the number of producers and cattle represented by the survey is not as large as expected, the mix of cattle marketed is considered to be representative of the B.C. situation.

TABLE 1 NUMBER OF PRODUCERS AND TYPE OF CATTLE MARKETED

REGION	NUMBER PRODUCERS	CATTLE SALES			
		CALVES	FEEDERS	SLAUGHTER	COWS
Interior Regions	39	1735	1921	1429	685
Omineca-Peace	12	420	123	10	58
Mainland	10	1403	503	1888	250
Island	3	37	5	20	9
TOTAL	64	3595	2552	3347	1002

3.1 SELLING METHODS

Selling methods in the four regions were tabulated for feeder cattle

and calves, slaughter cattle and calves, and cows (Appendix 3A). Private sales accounted for 44.5% of feeder cattle and calf sales, while auction markets accounted for 53%. Slaughter cattle and calf sales were almost all completed through direct negotiation with packer buyers, with a high percentage of rail grade sales. Cow marketings were 58% through direct sales and 42% through auction markets.

3.2 PRESENT SOURCES OF MARKET INFORMATION

The questionnaire reviewed the frequency of information use through telephone, radio, newspaper, newsletter and other sources for feeder and slaughter cattle; and whether information was used daily, weekly or periodically (Appendix 3B). In attaining weekly and periodic information for feeder and slaughter cattle, newsletters received the highest use, followed by newspapers and the telephone. For daily information requirements, radio was used more than any source, with newspapers ranking second. Feeder cattle producers appear to rely more on weekly reports, whereas cattle feeders depend on daily price information.

3.3 ADEQUACY OF PRESENT MARKET INFORMATION

Respondents were asked to rank current market information sources regarding timeliness, accuracy, etc. (Table 2). Animal descriptions, ie. class of animals and weight ranges, were considered good by more than half the respondents. Coverage of factors such as timeliness, accuracy, and locations reported were considered fair by more than half the participants, while about 8 to 15% of respondents ranked existing information as poor.

Without any weighting on the importance of factors, about 41% of the responses felt existing information is good, 48% fair, and 11% poor.

TABLE 2 ADEQUACY OF PRESENT MARKET INFORMATION *

	GOOD	FAIR	POOR
	(- No. Of Producers -)		
Timeliness	23	31	5
Accuracy	16	38	5
Locations	21	30	8
Class of Animals	28	25	6
Weight Range	33	20	6
Price Range	25	25	9

* Based on 59 of 64 producers surveyed.

3.4 INTEREST IN ELECTRONIC SYSTEMS

The questionnaire asked if producers would be interested in having an electronic information system available (Yes, No or Maybe). The response was about the same in all regions with 44% indicating YES, 36.5% indicating NO, and 19% indicating MAYBE (Table 3).

TABLE 3 INTEREST IN ELECTRONIC SYSTEMS

REGION	YES	NO	MAYBE	TOTAL
Interior	17	14	8	39
Omenica-Peace	6	4	2	12
Mainland	4	4	1	9
Island	1	1	1	3
TOTAL	28	23	12	63

Those indicating 'maybe' desired more information regarding system costs, operation details or both before responding. Many of those indicating NO, were generally of the opinion that present sources of information met their

needs. In some cases, producers indicated they were 'price takers' and did not have options as to the timing or location of sales.

3.5 OUT-OF-PROVINCE MARKETINGS

From the survey 13 producers marketed animals out-of-province accounting for 1291 head of calves and feeders, 970 slaughter cattle and 789 cows. About 56% of the feeder cattle and calves were marketed direct, 22% through country auctions and 22% through public livestock markets. For slaughter cattle, 31% were marketed direct, 59% through country auctions and 10% through public markets. In the case of cows 13% were marketed direct, 4% through country auctions, and 83% at public markets.

3.6 DESIRED MARKET INFORMATION FEATURES

Producers were asked to identify market outlets that provide the most useful information to facilitate marketing feeder cattle, slaughter cattle and cows, and to indicate the frequency (daily, weekly, periodic) that they require such information.

For all classes of cattle the strongest response was for weekly market information from (in order of importance) local auctions, other B.C. auctions, Alberta public markets, and Alberta country auctions (Appendix 3C). Daily market information was the next priority, with Alberta public markets ranking first and B.C. and Alberta auctions ranking about the same.

Preferences regarding the frequency of market report information from

all sources are summarized in Table 4. The frequency of information needs reflects the level of pricing activity for classes of cattle as well as the frequency of producer marketings. That is, producers market slaughter cattle more frequently and prices are more subject to daily change. Feeder cattle and cows are generally sold once or twice a year with most auctions holding sales once a week.

TABLE 4 MARKET INFORMATION REQUIREMENTS

	DAILY	WEEKLY	PERIODIC
	(- No Of Responses -)		
Calves and Feeders	65	221	35
Slaughter Cattle	32	76	19
Cows	22	100	20

The survey results also indicated that fall and spring information was the most important for calves, feeders and cows. The need for slaughter cattle information was more uniform throughout the year, with some increased demand in the fall (Appendix 3D)

Price Reporting Methods - Cattle feeders indicated a preference for reporting slaughter cattle prices by weight and sex; as opposed to a grade, weight and sex classification. Preferences appear to reflect the way in which cattle are sold. That is, live sales information is based on weight and sex with quality or grade description based on subjective evaluation; rail grade information is quoted for grade, weight and sex (Appendix 3D). Feeder cattle producers preferred reporting by either weight and sex, or weight, sex and grade (good, medium, common). Only 25 to 30 percent of the producers surveyed supported the use of the Agriculture Canada grading system for feeder cattle (ie. frame size and

fleshing). Both slaughter and feeder cattle producers indicated a slight preference for reporting for price ranges with extremes removed, rather than unmodified price ranges (Appendix 3D).

3.7 MARKET INFORMATION DISTRIBUTION ALTERNATIVES

The survey results clearly indicated a need for weekly market summary reports relating to the various B.C. and Alberta markets. About 80 percent of the feeder cattle producers, and 60 percent of the slaughter cattle producers indicated they use weekly market reports from a variety of sources (local auctions, Alberta weekly, etc.). From 40 to 50% of producers showed an interest in telephone, radio and newspaper reports. Telephone information was of interest to 4 out of 5 producers selling slaughter cattle, but only 13 of the 35 producers selling feeder cattle (Table 5).

TABLE 5 PREFERRED METHODS OF INFORMATION DISTRIBUTION

	FEEDER	SLAUGHTER	BOTH
Phone	13	4	7
Radio	16	2	9
Newspaper	12	4	7
Reports - weekly	28	3	13
- Monthly	1	1	3
- Annual	4	1	5
Total Producers	(35)	(5)	(19)

3.8 METHODS OF PAYMENT FOR SERVICE

Producers were asked what their preferred method of payment would be, if producer funding for the service was required (Table 6). Based on the number of producers in each marketing category, the response was at best inconclusive, except to say there would be some reluctance to pay for the

service.

TABLE 6 METHODS OF PAYMENT FOR SERVICE

	FEEDER	SLAUGHTER	BOTH
User Pay	12	1	4
Per Head Sold	8	0	9
Frequency of Use	1	0	1
Fixed Fee	13	2	1
Total Producers	(35)	(5)	(19)

In summarizing the producer survey the most significant information requirement appears to be the need for accurate daily and weekly market summaries for B.C. and Alberta auction markets, and Alberta public livestock markets. Producers selling slaughter cattle placed emphasis on weekly reports, but expressed greater interest in daily information than producers selling feeder cattle. The preferred medium for receiving information was weekly newsletters or reports. Of the other methods for disseminating information, producers selling feeder cattle had a slight preference for radio over newspapers or telephone; while producers marketing slaughter cattle ranked newspapers and telephone equally.

Producers appear to prefer description of cattle by weight and sex, as is used on the current ACC systems. Feeder cattle producers generally favor the use of subjective grade standards (good, medium, and common); only 25 to 30 percent supported the use of the Agriculture Canada grading system for feeder cattle (ie. frame, size and fleshing). Cattlemen appear divided concerning price reporting methods with a slight preference shown for removing extreme values from the actual price range for each class of animals reported.

4 B.C. AUCTION MARKETS

A "mail-out" questionnaire (Appendix 7) and follow-up telephone survey of livestock auction market operators in B.C. was conducted to provide information concerning existing market reporting systems and operator receptiveness to an electronic reporting sustem. There are presently 16 auction markets, licensed under the BCMA Veterinary Branch, operating in the province, all of which participated in the survey (Appendix 4). For the purpose of this report, the B.C. Livestock Producers Co-op, which operates 4 auction facilities in the Interior region (Kamloops, Okanagan Falls, Williams Lake and Merritt), was treated as a single market in accordance with the firm's response to the survey. With the exception of auctions having only limited cattle sales (2 Vancouver Island and 2 Mainland facilities), market operators indicated interest in computerized reporting subject to costs and reporting method. Two markets presently have computer facilities and two others are in the process of evaluating equipment.

Regionally, auction markets differ greatly in terms of volume and type of sales. The 6 Interior and Omineca-Peace firms (9 markets) are primarily involved in sales of beef cows, feeder cattle and calves. Market volumes are greatest during the fall and spring periods with seasonally lower volumes, particularly during the summer months. Only one firm reported a significant volume of slaughter cattle sales. Two markets in the Interior region conduct regular weekly sales (Tues/Thurs), and one market conducts sales every other Tuesday with only one sale per month during the summer

period. In the Omineca-Peace region one market conducts regular Thursday sales plus special Tuesday sales during the fall period, while two markets concentrate on the fall and spring periods (Tues/Sat sales).

The five auction markets in the Mainland region are primarily involved in dairy cow, calf and feeder sales with limited numbers of locally produced beef cattle sales. Most slaughter steers and heifers are sold direct to packers. Markets also report occassional sales of feeder cattle and calves from the Interior region. Three markets conduct regular cattle sales (Mon/Tues/Wed) throughout the year, and a fourth, specializing in hogs, sheep and goats, reported limited cattle volume (Saturday sales). Two auction markets in the region conduct specialized dairy replacement cattle and calf sales (Thur/Fri). The two Vancouver Island auction markets are very small and involved mostly on farm transfers of various classes of livestock (Saturday sales). Major sales of cows and feeder animals are either direct to packers, or through auction markets on the Mainland.

4.1 MARKET REPORTS

The present market reporting systems used by B.C. auctions are similar to the extent that most firms provide sales information to local radio stations and newspapers, and the larger auctions (Interior and Mainland) publish Weekly Market reports. Prices are reported by weight and sex classes for calves, feeder cattle, slaughter steers and heifers, cow and bulls. Three markets report actual price ranges by class, whereas five markets subjectively remove extreme values and report either the adjusted range, or the adjusted range with sales to some upper limit depending on

the nature of the higher priced sales (Appendix 5).

Market operators are generally in agreement concerning the need for accurate and timely price reporting, but are divided in terms of the classification systems necessary to provide a basis for slaughter and feeder cattle market reports. Although auctions account for only a small part of the total B.C. slaughter cattle sales, eight market operators indicated slaughter cattle prices should be reported according to weight and sex classes. Of these, 5 suggested grade stratifications were necessary to maintain consistency with Agriculture Canada reports from public markets. The remaining 3 firms questioned the need for grades, and the ability of auction markets to achieve the degree of uniformity or consistency experienced by Agriculture Canada Market reporters in assessing slaughter cattle grades at public livestock markets.

In the case of feeder cattle and calf sales, all market operators cited the need for weight and sex classification. In addition, 7 out of 10 indicated further subjective qualitative stratification, such as good, medium and common, is necessary to increase the accuracy of price reports. Only one market operator, located in the Mainland region, supported the adoption of the Agriculture Canada feeder cattle classification system.

Auction market operators in B.C. have varying opinions concerning the method of reporting price variations for the various classes of livestock sold. Three markets prefer the actual price range by class, whereas 5 auctions support the removal of high and low extreme values and reporting either the adjusted price range, or the adjusted price range with sales to

some higher level. Those operators favoring the adjusted prices indicated large price ranges are misleading and do not serve as an indicator of actual market conditions for a particular class of animals. They also suggested that price adjustments should be based on qualitative differences in the nature of sales lots, as opposed to price movements within a sales day. Reporting the adjusted price with sales to a higher level would reflect a significant sale of preferred animals, such as a uniform load of high quality, or reputation (ie. known origin and performance) animals.

The arguments put forth by proponents of price adjusted market reports appear to have some credibility, although subjective adjustments by market operators could bias reports in favor of a particular market. The Alberta market reporting system attempted a more objective adjustment by removing one standard deviation from the high and low values for each class. The precedure met with considerable criticism from producers, and has since been replaced with unadjusted prices and weighted average prices. As a result, reported price ranges for Alberta markets are often large ($20.+/cwt) and difficult to interpret.

Research evidence produced by Agriculture Canada suggests the removal of the low 15% and high 5% of sales from each sales class may provide a more accurate description of actual market conditions. The cattle markets information advisory committee recommends weighted average prices and price ranges be calculated based on 80% of the raw sales data after 5% of the raw data is removed from the top end and 15% is removed from the bottom end of the full price range for each class sold.

4.2 MARKET REPORTING METHODS

The survey of B.C. auction markets essentially supported the results of the producer survey concerning reporting and distribution methods for market information. Most operators indicated a need for daily and weekly reports relating to B.C. and Alberta markets. They generally preferred radio and newspaper distribution of daily information plus a published weekly summary. With the exception of the Cranbrook market, where radio reception is poor, all markets were satisfied with the present radio and newspaper coverage of local sales.

Most of the major auction markets in B.C. favor greater distribution of their particular market reports, and support the inclusion of Alberta auction and public market sales in B.C. market reports. Two markets in the Mainland region indicated they have a good market for Interior feeder cattle, but that most Interior producers are not aware of market conditions in the Fraser Valley, at least on a regular basis. They suggest a provincial market report, distributed by radio and newspaper, would be an asset to their respective operations.

Five of the 13 market operators surveyed in the province support the use of a code-a-phone distribution system providing it contained sufficient detail, and costs were not prohibitive. Other market operators suggested such a system would either not improve coverage to any great extent compared to the radio and newspaper coverage, or duplicate much of the service presently offered by the Agriculture Canada reporting system.

5 SYSTEM ALTERNATIVES AND COSTS

The market reporting process can be viewed in terms of the performance of three important functions: 1) Information accumulation, 2) Summarization of information and report preparation, and 3) Dissemination of market reports. Of these functions 1 and 2 are most clearly affected by computerization. Information dissemination to producers is based on a variety of means such as code-a-phones, newsletters, radio, and newspapers, or some combination of these communications modes.

The results of the producer and auction surveys indicate a need for a market reporting system in B.C. capable of providing daily and weekly information from the various B.C. and Alberta livestock markets. To accomplish this would necessitate a formal network to accumulate and summarize information and disseminate market reports. The volume of information gathered from all sources, together with the degree of data manipulation required to provide accurate and timely reports, suggests the need for automation within the reporting system.

Implementation of a provincial beef market information system, computerized or otherwise, would have basic requirements such as one full time market reporter, office space and a method for information release. Without computerization major costs would be the reporter's salary, phone calls for information collection, and information dissemination costs. With computerization, additional costs would include computer hardware and software at headquarters and at auction markets.

5.1 INFORMATION ACCUMULATION AND SUMMARIZATION

Computerization of the information accumulation and summarization functions would greatly increase the timeliness, accuracy and detail provided in B.C. market reports. At the auction level computers would facilitate the accumulation of all sales data as a basis for preparing market summaries. About 3 to 4 hours are required to input the information for a sale of 900 to 1000 animals. Less time is also required in transferring information between auctions and the central reporting facility, as well as in the preparation of final market reports. In the absence of such facilities either considerably more time would be required to compile sales data and transfer information, or only the highlights of each sale class could be gathered and reported.

In British Columbia, micro-computers could be employed effectively at four or five of the larger auction markets. Data entered at these markets would be transmitted via modem to a central facility equipped with a similar micro-computer system. Alternatively, auction markets could be provided with the necessary software to prepare and transfer summary reports to the central facility. For those markets not on the system, summary reports would be transferred to the market reporter via telephone. The central facility would also be responsible for assembling market information from other markets (primarily Alberta) and the preparation of market reports.

Several types of equipment (hardware) and communication programs (software) are capable of providing the technical requirements for market

reporting. In general, the system requirements include a micro-computer with 48K RAM, disk drive, numeric key pad, monitor, modem (300 Baud), and software (for communications and to compile reports). All system participants (auction markets and reporting facility) should use the same hardware to ensure compatibilty. Software compatibility can be assured by using the package developed for the Alberta Cattle Commission (available from Software Systems Ltd., Calgary, Alberta).

The estimated total costs associated with the equipment and software requirements for five auction markets and a central reporting facility involved in a market reporting system for B.C. may be summarized as follows:

Central office	- Hardware	$3,000.00	
	- Software	600.00	$3,600.00
Auction Markets (5)	- Hardware	$10,625.00	
	- Software	1,000.00	$11,625.00
Estimated Total Cost			$15,225.00

5.2 INFORMATION DISSEMINATION

The objective of an information dissemination system should be to make current information available immediately, at least cost and to the most producers. Depending on the communications medium chosen and the volume of use, dissemination of information can be the most costly aspect of a market information system.

Code-a-phones are the most convenient medium for disseminating market information, but also the most expensive. Messages can be up-dated

regularly, and the information is available to users 24 hours a day. Code-a-phones cost about $1100 each and a B.C. system would require a minimum of two (replacement and slaughter cattle) and preferably three (one for media reports). Line charges become the largest cost and the question arises whether the system should be toll-free, or on a user-pay basis. The user-pay basis would discourage utilization of the service, while the toll-free approach would require funding from cattle organizations or government.

The current B.C. telephone monthly rates for single line toll-free service within B.C. are $218.60 for 5 hours metered time plus $43.00 per hour for the next 5 hours, and $37.20 per hour after 10 hours. The charges for overline service, to provide 2 lines operating on the same telephone number (ie. back-up) during peak periods, would be twice the cost of single line service for the monthly period covered. A 10 hour minimum package is also available to include toll-free service to Alberta for $490.00 per month, or all provinces for $640.00 per month.

Based on the present telephone rate structure, the cost of providing code-a-phone access to cattle market reports in B.C. is dependent on the volume of access (ie. number of calls) and the number and length of market reports available on the system. Table 7 presents estimated costs for toll-free service to provide a single 3 minute market report with varying levels of access.

TABLE 7 ESTIMATED COSTS FOR TOLL-FREE SERVICE

	TOTAL ACCESS		TOTAL COST	
HOURS/MO.	CALLS/MO.	CALLS/YR.	MONTH	ANNUAL
5	100	1200	218.60	2623.20
10	200	2400	433.60	5203.20
15	300	3600	619.60	7435.20
20	400	4800	805.60	9667.20

A toll-free code-a-phone system to service the B.C. beef industry with separate lines for slaughter cattle, feeder cattle and media reports; with minimum access (100 calls per report per month), would cost $656 per month or $7870 annually. Such a system would likely meet the needs for slaughter cattle reports, but may not be adequate to service the media or feeder cattle market requirements.

A 5 hour code-a-phone system represents 100 three minute telephone calls per month, which would provide 5 radio stations with daily market reports. Servicing all media requirements (radio and newspaper) would likely exceed this 5 hour capacity by as much as 10 to 12 hours. Additional services to such outlets as Agriculture Canada market reporters, auction markets, trade journals and others could necessitate a further 3 hours per month. The Ontario system, for example, receives 20 to 25 media calls per market report, twice a day. Thus, media requirements for B.C. could conceivably reach 15 to 20 hours per month.

In the case of feeder cattle, both buyer and seller requirements would likely be satisfied by a system providing 5 hours of time during periods of normal market activity. During peak periods (September, October, November)

a back-up system would probably be required. This system would provide an additional 5 hours for each of the peak months under the same phone number. Table 8 summarizes the estimated minimum requirements and costs for code-a-phone service to provide separate market reports for feeder cattle, slaughter cattle and the media in B.C..

TABLE 8 ESTIMATED SYSTEM REQUIREMENTS AND COSTS
(Code-a-phone Distribution)

MARKET REPORT	HOURS	NO.CALLS	MONTHLY COST	ANNUAL COST
Feeder Cattle	5	100	218.60	2623.20
- Back-up (3 months)	5	100	218.60	655.80
Slaughter Cattle	5	100	218.60	2623.20
Media (1)	15	300	619.60	7435.20
(2)	20	400	805.60	9667.20
Total Cost (1)				13337.40
(2)				15569.40

Should this initial system become popular with producers, its convenience could stimulate sharp increases in the demand for its use, particularly for feeder cattle reports. Based on the Alberta experience, this increased use can prove to be very expensive. Should access to the feeder cattle report increase from the estimated 200 calls per month to 2000 calls per month during the peak period, system costs would increase by $3348 for peak months (ie. 1800 calls x $1.86 per call), or $10,044 annually.

Media - Radio is the most effective and least costly method of disseminating daily market information. Rural stations are generally quite

receptive to receiving "program ready" market reports which can be relayed via code-a-phone, telephone, or telex. The code-a-phone system is the most convenient since the market reporter is required to repeat the message only once, and stations can tape and edit the message for broadcast. Telex requires typing the entire market report and multiple transmittal of the message to stations, a costly and time consuming process.

The newspaper reports are useful for weekly market summaries, but cannot achieve the timeliness objective of providing daily information for slaughter cattle marketing decisions. Newsletters are useful for the distribution of market summaries and background information; however, they cannot meet the needs for daily market information. The cost of publication and postage can also become expensive.

6 SUMMARY AND CONCLUSIONS

Research to assess the feasibility of establishing a market price reporting system for livestock sales in B.C. have involved consideration of the existing system as well as the range of potential market reporting options available. The assessment has been made regarding producer and auction market operators' perceptions of desired reporting system characteristics compared to what they now utilize. Also, alternative price reporting systems in Alberta, Saskatchewan, Ontario and the U.S. were assessed to determine their relevance to the B.C. situation. From a review of these, a series of findings emerge with which to characterize the conclusions reached and which are appropriate to the objectives of this report. The major issues addressed by the contents of the study are itemized in the following summary.

- although the repsonse rate to the producer survey was low, approximately half of those responding indicated they would be interested in code-a-phone access to market reports.

- about 40% of the producers responding were satisfied with the market information they now receive from radio and newspaper reports for both feeder and slaughter cattle markets. The existing market information system consists of reports on local market conditions and, in some cases, Alberta public markets. It generally does not include information relating to other B.C. markets, Alberta auction markets, U.S. cattle markets, or livestock futures markets.

- feeder cattle producers prefer daily radio and newpaper reports plus weekly summary reports, and would also utilize telephone access if available, but less frequently than radio sources.

- cattle feeders require daily price information for Alberta slaughter cattle markets. For feeder cattle purchases they would be adequately serviced by the same system provided to feeder cattle producers.

- most auction market operators were interested in an electronic market reporting system depending on the nature of the system and costs.

- interest in an improved market information system expressed by both auction operators and producers was based on the perceived need for improved daily and weekly coverage of B.C. and Alberta for feeder and slaughter cattle.

- producers and auction markets generally prefer feeder and slaughter cattle price reporting by weight and sex classifications, with subjective quality designations (good, medium and common) for feeder animals. For slaughter cattle, opinions are divided between Agriculture Canada grades and providing the relevant grade discounts.

- most auction markets require price reporting based on the removal of extreme values. Cattlemen are divided between reporting actual price ranges and quotations with extreme values eliminated.

- though respondents indicated that an improved market reporting system would be supported, the 'improved system' does not necessarily point to code-a-phone reporting as the only dissemination alternative. Options include improved radio and newspaper coverage and distribution of weekly market reports.

Based on a review of producer and auction market respondents' requirements, characteristics of system development, and the cost of providing and operating the various market reporting alternatives available, an electronic market reporting system, with toll-free code-a-phone access limited to the media, appears feasible for the B.C. beef industry. The larger auction markets in the province either have computer facilities or have indicated an interest in using such facilities. These markets, located in the Interior, Mainland, and Omineca-Peace regions, could provide the basis for an electronic market reporting system. The remaining smaller markets are either not interested in such a system, or operate during only part of the year.

The extension of code-a-phone service to the producing sector does not appear justified or necessary. Only 64 of 700 producers responded to the mail-out survey, and of these less than half (44%) indicated an interest in telephone access to market information. A majority of respondents

preferred improved radio or newspaper coverage and weekly summaries of regional (B.C. and Alberta) market conditions. This can be accomplished by encouraging the media to utilize market reports provided by a toll-free code-a-phone system. A previous attempt by the B.C. Cattlemen's Association to provide telephone access to recorded market reports did not generate adequate producer support.

A B.C. electronic market reporting system, if adopted, would involve employment of a centralized market reporter with computer facilities to access the four or five computerized markets in the province, as well as the Alberta market reports. Summary reports would be obtained from the remaining auctions in B.C. by telephone. The market reporter would then prepare market reports for code-a-phone distribution to the media, government, other market reporters and selected B.C. industry representatives (eg. B.C. Cattlemen's Association). In addition, the reporter would compile weekly summary reports for newsletter distribution to the beef industry.

The suggested market reporting system would provide the beef industry with daily and weekly market information. By employing code-a-phones to disseminate market reports to the media, hardware and distribution costs would be minimized while servicing the greatest number of producers. If telephone access was extended to the producing sector, the total system cost would increase by the cost of additional code-a-phones and line charges. Table 9 summarizes the requirements and costs for a system based on the computerization of five auction markets and code-a-phone dissemination of market information to the media.

TABLE 9 ESTIMATED EQUIPMENT AND OPERATING COSTS:
B.C. ELECTRONIC MARKET REPORTING SYSTEM
(Media toll-free distribution)

EQUIPMENT REQUIREMENTS:			
Central Office	- Hardware	$ 3,000.00	
	- Software	600.00	
	- Code-a-phone	1,100.00	$ 4,700.00
AUCTION MARKETS (5)	- Hardware	10,625.00	
	- Software	1,000.00	$11,625.00
OPERATING REQUIREMENTS:			
Central Office	- Market Reporter	15,000.00	
	- Office Overhead	6,000.00	
	- Line Charges	9,667.00	$30,667.00
TOTAL COST FIRST YEAR			$46,992.00

At the outset of investigations regarding feasible reporting system options, a system involving no computerization but with increased market coverage through centralized data collection by telephone was considered. This option was dismissed as the merits of an electronic system became clear. The advantages extended by an electronic system include: 1) greater accuracy, uniformity and detail within auction market summaries, and 2) the ability to transmit market information between regions. To achieve these gains requires industry coordination, at the national level, to permit development of uniform classification and price reporting methods.

The Canadian Cattle Markets Information Advisory Committee has been established to develop guidelines and coordinate the efforts of all groups involved in the collection and dissemination of market information. To the

extent that industry representatives, including governments, can agree on the nature of centralized market reporting, an electronic system may have considerable potential for improving the scope and quality of market information for the B.C. beef industry.

APPENDIX 1

AUCTION REPORT FOR A.C.C.

DATE 84/07/04

SALES BY WEIGHT

	LOW $	HIGH $	# SOLD	TOT $	AVERAGE $
SLAUGHTER STEER	0.00	0.00	0	0	0.00
SLAUGHTER HEIFER	44.00	70.00	5	3080	53.13
SL HEAVY HEIFER	300.00	1000.00	37	3700	685.54
SLAUGHTER COW	41.75	51.50	57	66680	47.13
SLAUGHTER CALF	30.00	330.00	105	10500	132.19
SL BULL UNDER 1100 LBS	52.00	74.25	7	5540	63.71
SL BULLS OVER 1100 LBS	53.00	63.75	6	9230	59.35
SLAUGHTER HOLSTEIN	0.00	0.00	0	0	0.00
FD STEER 0 -> 299	76.25	90.00	5	450	81.44
FD STEER 300 -> 399	71.00	89.00	6	2000	80.45
FD STEER 400 -> 499	80.50	88.50	6	2880	83.07
FD STEER 500 -> 599	71.75	88.50	20	10940	82.82
FD STEER 600 -> 699	68.50	87.00	37	23780	80.23
FD STEER 700 -> 799	74.85	80.00	48	35750	76.13
FD STEER 800 -> 899	65.00	78.25	41	34930	74.29
FD STEER 900+	68.00	74.00	7	7630	70.88
FD HEIFER 0 -> 299	65.00	84.00	3	820	78.21
FD HEIFER 300 -> 399	69.00	87.00	2	600	78.00
FD HEIFER 400 -> 499	59.00	85.25	9	4160	72.22
FD HEIFER 500 -> 599	71.50	80.75	17	9330	75.98
FD HEIFER 600 -> 699	64.50	78.75	57	36400	74.62
FD HEIFER 700 -> 799	68.75	73.10	17	12530	71.22
FD HEIFER 800 -> 899	65.50	75.25	8	6730	70.25
FD HEIFER 900+	52.10	73.25	21	20530	64.94
FEEDER COW	50.50	59.00	7	7540	53.60
FEEDER CALF	0.00	0.00	0	0	0.00
COW-CALF PAIR	570.00	900.00	19	1900	773.42
BRED HEIFER	0.00	0.00	0	0	0.00
BRED COW	0.00	0.00	0	0	0.00
FD BULL UNDER 1100 LBS	68.25	104.00	106	178590	72.86
FD BULL OVER 1100 LBS	0.00	0.00	0	0	0.00
FEEDER HOLSTEIN	43.50	58.50	13	10300	53.52
RAIL GRADE	0.00	0.00	0	0	0.00
SUBJECT	25.00	38.50	5	4280	32.16
PASSOUT	0.00	0.00	0	0	0.00

TOTAL NUMBER OF ANIMALS 671

APPENDIX 2

ALBERTA CATTLE COMMISSION
241, 2116 - 27th AVE. N.E., CALGARY, ALTA.
TEL. CALGARY 230-2161

Alberta AGRICULTURE

MARKET INFORMATION CENTRE
24 HOUR TOLL FREE

SLAUGHTER CATTLE **1-800-332-1194**
FEEDER & STOCKER CATTLE **1-800-332-1195**

CALGARY AREA CALLING **Slaughter: 277-5097 Feeders: 232-1195**

REPLACEMENT TRADE DATE _____

At the ALBERTA TERMINAL AND COUNTRY AUCTION MARKETS:

Calgary and South (Market: _____)

Feeder Steers			Feeder Heifers		
8+	_____	ave _____	8+	_____	ave _____
7-8	_____	ave _____	7-8	_____	ave _____
6-7	_____	ave _____	6-7	_____	ave _____
5-6	_____	ave _____	5-6	_____	ave _____
4-5	_____	ave _____	4-5	_____	ave _____
3-4	_____	ave _____	3-4	_____	ave _____

Stock Cows, etc. _____

In Central Alberta (Market: _____)

Feeder Steers			Feeder Heifers		
8+	_____	ave _____	8+	_____	ave _____
7-8	_____	ave _____	7-8	_____	ave _____
6-7	_____	ave _____	6-7	_____	ave _____
5-6	_____	ave _____	5-6	_____	ave _____
4-5	_____	ave _____	4-5	_____	ave _____
3-4	_____	ave _____	3-4	_____	ave _____

Stock Cows, etc. _____

Edmonton and North (Market: _____)

Feeder Steers			Feeder Heifers		
8+	_____	ave _____	8+	_____	ave _____
7-8	_____	ave _____	7-8	_____	ave _____
6-7	_____	ave _____	6-7	_____	ave _____
5-6	_____	ave _____	5-6	_____	ave _____
4-5	_____	ave _____	4-5	_____	ave _____
3-4	_____	ave _____	3-4	_____	ave _____

Stock Cows, etc. _____

American (or B.C.) Trade: _____

_____

_____

APPENDIX 2

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241, 2116 - 27th AVE. N.E., CALGARY, ALTA.
TEL: CALGARY 230-2161

Alberta AGRICULTURE

MARKET INFORMATION CENTRE
24 HOUR TOLL FREE

SLAUGHTER CATTLE **1-800-332-1194**

FEEDER & STOCKER CATTLE **1-800-332-1195**

CALGARY AREA CALLING Slaughter: 277-5097 Feeders: 232-1195

SLAUGHTER — MORNING DATE _____

Toronto: _____

_____

_____

Strs _____ Xbred Hfrs _____ Hfrs _____

Alberta Direct Cattle Sales yesterday: _____

_____

EDMONTON/RED DEER: Strs _____ Rail _____

Hfrs _____ Rail _____

CALGARY: Strs _____ Rail _____

Hfrs _____ Rail _____

LETHBRIDGE: Strs _____ Rail _____

Hfrs _____ Rail _____

Packer Offerings on handyweight carcasses FOB the plant this morning are as follows:

EDMONTON/RED DEER: A1,2 Strs _____ A1,2 Hfrs _____

D grade Cows _____

CALGARY: A1,2 Strs _____ A1,2 Hfrs _____

D grade Cows _____

LETHBRIDGE: A1,2 Strs _____ A1,2 Hfrs _____

D grade Cows _____

Butcher bulls in Alberta: _____

U.S. Trade: Omaha (or Illinois) opening: _____

Choice steers _____ Choice heifers _____

In Canadian Funds:

Steers _____ Heifers _____

Chicago Mercantile Exchange: midsession trade on live cattle future prices:

_____ _____ _____

APPENDIX 2

ALBERTA CATTLE COMMISSION
241, 2116 - 27th AVE. N.E., CALGARY, ALTA.
TEL: CALGARY 230-2161

Alberta AGRICULTURE

MARKET INFORMATION CENTRE
24 HOUR TOLL FREE

SLAUGHTER CATTLE **1-800-332-1194**

FEEDER & STOCKER CATTLE **1-800-332-1195**

CALGARY AREA CALLING **Slaughter: 277-5097 Feeders: 232-1195**

SLAUGHTER — AFTERNOON DATE _____

Alberta Direct Cattle Sales yesterday: _____

_____

EDMONTON/RED DEER: Strs _____ Rail _____

Hfrs _____ Rail _____

CALGARY: Strs _____ Rail _____

Hfrs _____ Rail _____

LETHBRIDGE: Strs _____ Rail _____

Hfrs _____ Rail _____

Cow Trade:

CALGARY AND SOUTH: D1,2 _____ D3,5 _____

CENTRAL ALBERTA: D1,2 _____ D3,5 _____

EDMONTON AND NORTH: D1,2 _____ D3,5 _____

TORONTO: D1,2 _____ D3,5 _____

At the **Terminal** and **Country Auction Markets:**

CALGARY AND SOUTH: A1,2 Strs _____ A1,2 Hfrs _____

CENTRAL ALBERTA: A1,2 Strs _____ A1,2 Hfrs _____

EDMONTON AND NORTH: A1,2 Strs _____ A1,2 Hfrs _____

TORONTO: A1,2 Strs _____ A1,2 Hfrs _____

WINNIPEG: A1,2 Strs _____ A1,2 Hfrs _____

Butcher bulls in Alberta: _____

U.S. Trade: OMAHA closing

Choice steers _____ Choice heifers _____

In Canadian Funds:

Steers _____ Heifers _____

Chicago Mercantile Exchange: closing prices on live cattle future prices:

_____ _____ _____

APPENDIX 3A

PRODUCER SURVEY

SELLING METHODS

FEEDER CATTLE AND CALVES

	DIRECT	AUCTION	ON-FARM	TOTAL
Interior Regions	2027	1537	110	3674
Omineca - Peace	180	359	4	543
Mainland	538	1368	-	1906
Island	32	10	-	42
Total	2777	3274	114	6165

SLAUGHTER CATTLE AND CALVES

	DIRECT	AUCTION	ON-FARM	TOTAL
Interior Regions	1353	76	-	1429
Omineca - Peace	-	10	-	10
Mainland	1873	15	-	1888
Island	20	-	-	20
Total	3246	101	-	3347

COWS

	DIRECT	AUCTION	ON-FARM	TOTAL
Interior Regions	313	372	-	685
Omineca - Peace	21	37	-	58
Mainland	240	10	-	250
Island	4	5	-	9
Total	578	424	-	1002

APPENDIX 3B

PRODUCER SURVEY

SOURCES OF MARKET INFORMATION

AND FREQUENCY OF USE

	FEEDER CATTLE				SLAUGHTER CATTLE			
	INT.	O-P	M	ISL.	INT.	O-P	M	ISL.
PHONE								
- Daily	1	2	-	1	1	-	-	-
- Weekly	4	-	-	-	1	-	3	-
- Periodic	5	2	1	-	4	1	-	-
RADIO								
- Daily	11	7	-	2	6	1	-	1
- Weekly	2	2	-	-	1	-	1	-
- Periodic	-	1	-	1	-	-	1	-
NEWSPAPER								
- Daily	4	3	1	-	2	-	2	-
- Weekly	8	-	1	-	1	-	1	-
NEWSLETTER								
- Weekly	12	2	2	1	3	-	1	-
- Periodic	7	2	-	1	5	1	2	-
OTHER								
- Weekly	2	-	-	1	-	-	-	1
- Periodic	2	2	1	-	2	-	2	-

REGIONS: INT. = Interior; O-P = Omineca - Peace;
M = Mainland; ISL.= Island.

APPENDIX 3C

PRODUCER SURVEY

PREFERRED MARKET COVERAGE AND FREQUENCY OF COVERAGE

	CALVES			FEEDERS			SLAUGHTER			COWS		
	D	W	P	D	W	P	D	W	P	D	W	P
Local Auction	7	40	4	5	37	2	4	25	5	3	33	6
B.C. Auction	5	34	6	4	32	3	7	22	5	3	30	5
Alta Pub. Mkt.	17	18	6	13	18	3	13	14	5	11	18	4
Alta Auction	6	18	5	6	14	3	5	13	3	4	12	4
Other	1	4	2	1	6	1	3	2	1	1	4	1

D = Daily; W = Weekly; P = Periodic

APPENDIX 3D

PRODUCER SURVEY

PERIOD MARKET INFORMATION REQUIRED

	CALVES	FEEDERS	SLAUGHTER	COWS
Spring	22	34	24	32
Summer	11	18	24	27
Fall	49	37	31	40
Winter	20	20	22	28

PRICE REPORTING OPTIONS FOR SLAUGHTER CATTLE

	STEERS AND HEIFERS	COWS
Weight and Sex	31	25
Grade and Sex	9	6
Grade, Weight and Sex	22	16

PRICE REPORTING OPTIONS FOR FEEDER CATTLE AND CALVES

	CALVES	FEEDERS
Weight and Sex	28	23
Weight, Sex and Grade (Frame Size, Flesh)	17	19
Weight, Sex and Grade (Good, Med. Common)	21	22
Other	3	-

PRICE REPORTING METHODS

	FEEDERS	SLAUGHTER
Actual Price Range by Class	13	7
Price Range Excluding Extremes	19	8
Weighted Average Price	11	3

APPENDIX 4

BRITISH COLUMBIA LIVESTOCK

AUCTION MARKETS

REGION	LOCATION	SALE DAYS
OMINECA - PEACE		
- Vanderhoof Auction Mart	Vanderhoof	Sat. (Fall/Spring)
- VIP Auctions	Vanderhoof	Tues.(Fall) Mo.(Winter-Spring)
- Patterson Auction Mart	Dawson Cr.	Thurs.(Plus Special Sales)
INTERIOR REGIONS		
- Valley Auctions Ltd.	Armstrong	Thurs.
- B.C. Livestock Prod.Coop	Kamloops	Tues.
- " " " "	Okanagan Falls	Mon. (20/year)
- " " " "	Williams Lake	Thurs (35/year)
- " " " "	Merritt	Periodic
-Community Auct.Sales Assn.	Cranbrook	Tues.(2/mo.); Mo.(Summer)
MAINLAND		
- Chapman Auctioneers	Chilliwack	Fri. (Mostly Dairy)
- Fraser Valley Auct.Ltd.	Langley	Sat. (Mostly hogs,sheep,goats)
- West Coast Auct. Ltd.	Surrey	Wed.
- McClary Stockyards Ltd.	Abbotsford	Mon.
- Midway Livestock Auct.Ltd.	Abbotsford	Tues.(Beef); Thurs.(Dairy)
ISLAND		
- CCC Auctions Ltd.	Melville	Sat. (2/mo.) - very small
- Cowichan Cattlemans Auct.	Duncan	Sat. - very small

APPENDIX 5

AUCTION SURVEY

SUMMARY OF SURVEY RESULTS

LOCATION:	O.-P.			INTERIOR			MAINLAND					ISLAND	
FIRM * :	1	2	3	1	2	3	1	2	3	4	5	1	2
Market Reporting (Present)													
- Radio	x	x		x	x		x			x			
- Newspaper	x	x	x	x	x	x		x	x	x	x		x
- Weekly report				x			x		x	x			
Interest in Computer System	x	x	x	x	x	x			x	x	x		
Markets - Local	x	x	x	x	x	x	x		x	x			
- Other B.C.	x	x	x	x	x				x	x			
- Alta PLM	x	x	x	x	x	x			x	x			
- Alta Auctions	x		x	x	x	x			x	x			
Slaughter - Wt. & Sex	x				x		x						
- Grade,Wt.& Sex		x		x		x			x	x			
Feeders - Wt. & Sex			x	x	x			x					
- Wt. & Sex-Frame Size									x				
- Wt. & Sex-Subjective	x	x	x			x	x			x	x		
Reporting - Range						x			x	x			
- Less Extremes		x	x	x	x		x						
- Wt. Ave.	x				x								
- Volume									x		x		
Dist'n - Phone	x			x	x	x			x	x			
- Radio	x	x	x	x	x		x	x		x			
- Newspaper	x	x	x		x	x	x	x		x			
- Report-weekly	x			x		x	x		x	x			
- Monthly				x									
- Annual				x									

* Firm numbers do not correspond to the order presented in Appendix 4.

APPENDIX 6

DAWSON, DAU AND ASSOCIATES LTD.
Economic & Computer Consultants

July 15, 1984

LIVESTOCK MARKET INFORMATION SYSTEM
PRODUCER QUESTIONNAIRE AND COVERING LETTER

Dear Sir/Madam:

Dawson, Dau and Associates has been selected to conduct a study on the feasibility of a livestock market reporting system for the B.C. beef industry. This project was proposed by the B.C. Beef Industry Committee and is to be conducted under funding provided by the federal-provincial Agriculture and Rural Development Agreement (ARDSA).

A livestock market information reporting system is intended to provide accurate and timely information on prices, volumes sold, and short term changes and trends in supply and demand conditions in cattle markets. Such a system provides information essential to effective and competitive production and marketing decisions. Information systems typically link a number of livestock markets and are capable of gathering data for a large area. Electronic systems, such as the one now operating in Alberta, provide buyers and sellers with daily price information which puts them in a strong position concerning the timing of sales and choice of markets. Successes with the system in Alberta suggests that a similar type of system may be suitable for B.C.

In order to determine the feasibility of such a system in B.C. it is important to assess producers' attitudes toward market information as well as their information needs. The attached questionnaire is designed to provide you with an opportunity to present your responses to questions on the market information system you now use (if any) and your expectations for improvements in market information if a new system was introduced.

Details concerning your market information requirements, and assessment of the proposed system is essential to our research effort. Please complete and return the attached questionnaire in the envelope supplied before July 30, 1984. The survey information will be confidential; in this regard the NAME portion may be omitted, but the LOCATION is critical to analysis of the study.

Yours truly

D.G. Dawson

111 Canterbury Drive S.W., Calgary, Alberta T2W 1H3 Telephone: (403) 281-0944
1551 - 134A Street, Surrey, British Columbia V4A 5P7 Telephone: (604) 531-9679

PRODUCER QUESTIONNAIRE: Livestock Market Information System

NAME: _____ ADDRESS: _____

1. Please complete the details below concerning your marketing patterns during 1983:

Sold in B.C.	Approximate Number of Head: Calves	Feeders	Slaughter	Cows
Private Sales	_____	_____	_____	_____
Auction Market	_____	_____	_____	_____
On-Farm Auction	_____	_____	_____	_____
Other	_____	_____	_____	_____

Sold Outside B.C.	Calves	Feeders	Slaughter	Cows
Private Sales	_____	_____	_____	_____
Auction Market	_____	_____	_____	_____
On-Farm Auction	_____	_____	_____	_____
Public Market (eg.Calgary,Edmonton)	_____	_____	_____	_____

2. a) Please indicate the sources of market information used in 1983 in terms of frequency of use (D=Daily,W=Weekly,P=Periodic)

Phone	Radio	Paper	Newsletter	Other(specify)
_____	_____	_____	_____	_____

3. How do you rate market information available to you in terms of the following measures: (G=Good, F=Fair, P=Poor). Circle one.

	Rating				Rating		
a) Timeliness	G	F	P	d) Report Content:			
b) Accuracy	G	F	P	- classes of animal	G	F	P
c) Locations	G	F	P	- weight ranges	G	F	P
				- price ranges	G	F	P

Comments: _____

_____

_____

4. Would you be interested in using an electronic market information system if it was introduced ? YES _____ NO _____ .

5. Which markets need to be covered by a market reporting system and at what frequency does the coverage need to be offered? (D=Daily, W=Weekly, P=Periodic, circle one).

Markets Covered	Calves			Feeders			Slaughter			Cows		
Local Auction	D	W	P	D	W	P	D	W	P	D	W	P
Other B.C. Auctions	D	W	P	D	W	P	D	W	P	D	W	P
Alberta Public Markets (eg.Calgary, Edmonton)	D	W	P	D	W	P	D	W	P	D	W	P
Alberta Auctions	D	W	P	D	W	P	D	W	P	D	W	P
Other (specify) _____	D	W	P	D	W	P	D	W	P	D	W	P

6. What period of the year is market information required (indicate which months of the year you prefer information to be available):

Period of the Year	Calves	Feeders	Slaughter	Cows
	_____	_____	_____	____

DETAILS CONCERNING THE KINDS OF INFORMATION YOU WOULD LIKE TO SEE IF A NEW ELECTRONIC MARKET INFORMATION SYSTEM WAS TO BE MADE AVAILABLE:

7. Which of the following options would you prefer to see reported for SLAUGHTER cattle classes of animals? Please mark the appropriate space.

	Slaughter Classes			
	Steers	Heifers	Cows	Bulls
a) By Weight and Sex	____	____	____	____
b) By Carcass Grade & Sex	____	____	____	____
c) By Carcass Grade, Weight & Sex	____	____	____	____
d) Other (please specify) _____	____	____	____	____

8. Which of the following options would you prefer to see reported for FEEDER cattle classes of animals? Please mark the appropriate space.

	Feeder Classes	
	Calves	Feeders
a) By Weight & Sex	____	____
b) By Agriculture Canada Grade, Weight & Sex (ie.Frame Size & Flesh)	____	____
c) Other Grade, Weight & Sex (eg. Good, Medium, Common)	____	____
d) Other (please specify) _____	____	____

9. How should prices be reported?

Actual price range by class _____

Price range excluding extreme values _____

Weighted average price _____

Other (specify):_____

_____

10. How should market information be made available?

Direct Telephone access _____ Radio _____ Newspaper _____

Published Reports: Weekly ____ Monthly ____ Annual Summary ____

11. If it was necessary for producers to cover operating costs for such a system, how should charges be levied?

a) on a user-pay basis
b) according to number of head sold _____
c) according to frequency of use _____
d) fixed fee or subscription _____
e) other (specify): _____

_____

12. Please use the back of this page for any additional comments you may have regarding the proposed market information system or your market information requirements.

APPENDIX 7

DAWSON, DAU AND ASSOCIATES LTD.
Economic & Computer Consultants

September 5, 1984

RE: FEASIBILITY OF A LIVESTOCK MARKET INFORMATION SYSTEM FOR B.C.

Dear Sir:

Dawson, Dau and Associates has been selected to conduct a study on the feasibility of a livestock market reporting system for the B.C. beef industry. This project was proposed by the B.C. Beef Industry Committee and is to be conducted under funding provided by the federal-provincial Agriculture and Rural Development Agreement (ARDSA).

A livestock market information reporting system is intended to provide accurate and timely information on prices, volumes sold, and short term changes and trends in cattle markets. Information systems typically link a number of livestock markets and are capable of gathering data for a large area. Computerized systems, such as the one now operating in Alberta, provide individual auction markets with an efficient means of compiling and reporting daily price information. Successes with the system in Alberta suggests that a similar type of system may be suitable for B.C. In order to determine the feasibilty of such a system in B.C. it is important to assess the attitudes of auction market operators toward market information, and their information needs.

Details concerning your information requirements, and assessement of the proposed system is essential to our research effort. Please complete and return the attached questionnaire in the envelope supplied before September 15, 1984. The survey information will be confidential. Should you have any questions concerning the project or survey materials, please do not hesitate to call me.

Yours truly

O. G. Dawson
Manager, B.C. Operations

OGD/pmd

111 Canterbury Drive S.W., Calgary, Alberta T2W 1H3 Telephone: (403) 281-0944
1551 - 134A Street, Surrey, British Columbia V4A 5P7 Telephone: (604) 531-9679

AUCTION MARKET SURVEY: LIVESTOCK MARKET INFORMATION SYSTEM

NAME:..... ADDRESS:.....

SALE DAYS .....

1. Please complete the details below concerning your marketing patterns during 1983 (Approximate Number of Head):

	Calves	Feeders	Slaughter	Cows
Sales Volume	.....	.....	.....	.....
Sold To B.C.	.....	.....	.....	.....
Sold To ALTA	.....	.....	.....	.....
Sold To Other	.....	.....	.....	.....

Specify .....

2. If you provide market information concerning your sales, please indicate the method(s) and distribution (local, B.C., Other Prov.)

Method:	Phone	Radio	Paper	Newsletter	Other (specify)
Distribution	.....	.....	.....	.....	.....

Comments .....
.....

3. Please indicate the sources of market information used in 1983 in terms of frequency of use (D=Daily, W=Weekly, P=Periodic)

Phone	Radio	Paper	Newsletter	Other(specify)
.....	.....	.....	.....	.....

4. How do you rate market information available to you in terms of the following measures: (G=Good, F=Fair, P=Poor) Circle one.

	RATING				RATING		
a) Timeliness	G	F	P	d) Report Content:			
b) Accuracy	G	F	P	- Classes of animal	G	F	P
c) Locations	G	F	P	- Weight ranges	G	F	P
				- Price ranges	G	F	P

Comments: .....
.....
.....

5. Would you be interested in using a computerized market information system if it was introduced? YES ..... NO .....

6. Which markets need to be covered by a market reporting system and at what frequency does the coverage need to be offered? (D=Daily, W=Weekly, P=Periodic). Circle one.

	Calves	Feeders	Slaughter	Cows
Local Auctions	D W P	D W P	D W P	D W P
Other B.C. Auctions	D W P	D W P	D W P	D W P
Alberta Public Markets (eg.Calgary,Edmonton)	D W P	D W P	D W P	D W P
Alberta Auctions	D W P	D W P	D W P	D W P
Other (SPECIFY)				
.....	D W P	D W P	D W P	D W P

7. Please indicate period of the year market information is required for:

Calves	Feeders	Slaughter	Cows
.....	.....	.....	.....

DETAILS CONCERNING THE KINDS OF INFORMATION YOU WOULD LIKE TO SEE IF A NEW COMPUTERIZED MARKET INFORMATION SYSTEM WAS TO BE MADE AVAILABLE:

8. Which of the following options would you prefer to see reported for SLAUGHTER cattle classes of animals? Please mark appropriate space.

	SLAUGHTER CLASSES			
	Steers	Heifers	Cows	Bulls
a) By Weight and Sex	.....	.....	....	.....
b) By Carcass Grade and Sex	.....	.....	....	.....
c) By Carcass Grade, Weight and Sex	.....	.....	....	.....
d) Other (Please specify)				
.....	.....	.....	....	.....

9. Which of the following options would you prefer to see reported for FEEDER cattle classes of animals? Please mark appropriate space.

	FEEDER CLASSES	
	Calves	Feeders
a) By weight and Sex	.....	.....
b) By Agriculture Canada Grade, Weight and Sex (ie.Frame size and Flesh)	.....	.....
c) Other Grade, Weight and Sex (eg. Good, Medium, Common)	.....	.....
d) Other (Please Specify)		
.....	.....	.....

10. How should prices be reported?

Actual price range by class .....

Price range excluding extreme values .....

Weighted average price .....

Other (Specify): .....

.....

11. How should market information be made available?

Direct Telephone Access ..... Radio ..... Newspaper .....

Published Reports: Weekly ..... Monthly ..... Annual Summary .....

12. If it was necessary for Auction Markets to cover equipment and operating cost for such a system, how should charges be levied?

a) on a user-pay basis .....
b) according to number of head sold .....
c) according to frequency of use .....
d) fixed fee or subscription .....
e) Other (Specify):

.....

Please use the back of this page for any additional comments you may have regarding the proposed market information system or your market information requirements.